

Serial No. 10/760,454

Docket No. P-0645

Amdt. dated December 22, 2004

Reply to Office Action of September 23, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) The A front substrate of a plasma display panel (PDP) including a colorant-added upper dielectric layer, wherein the colorant is Co_2O_3 .
2. (Original) The front substrate of claim 1, wherein the colorant controls a light transmittance.
3. (Canceled)
4. (Currently Amended) The front substrate of claim ~~[[3]]~~ 1, wherein ~~Nd_2O_3 is added in the range of 0~40 wt %, and cobalt oxide~~ Co_2O_3 is added in the range of 0~10 wt %.
- 5 - 34 (Canceled)
35. (New) The front substrate of claim 1, wherein the colorant is a material for controlling a light transmittance.

36. (New) The front substrate of claim 1, wherein the upper dielectric layer comprises a glass powder, wherein the glass powder is one of PbO-B₂O₃-SiO₂-Al₂O₃-RO group, P₂O₅-B₂O₃-ZnO group, ZnO-B₂O₃-RO group, and PbO-B₂O₃-SiO₂-Al₂O₃-BaO group.

37. (New) The front substrate of claim 36, wherein the upper dielectric layer is formed by mixing 65wt% of PbO, 10wt% of B₂O₃, 20wt% of SiO₂ and Al₂O₃ and 5wt% of RO.

38. (New) The front substrate of 37, wherein the RO is one of BaO, SrO, La₂O, Bi₂O₃, MgO and ZnO.

39. (New) The front substrate of claim 36, wherein the upper dielectric layer is formed by mixing 41.9wt%~52.0wt% of P₂O₅, 3.3wt%~22.0wt% of B₂O₃ and 36.1wt%~44.7wt% of ZnO.

40. (New) The front substrate of claim 36, wherein the upper dielectric layer is formed by mixing 34.0wt% of ZnO, 29wt% of B₂O₃ and 37.0wt% of RO, wherein the RO is one of BaO, SrO, La₂O, Bi₂O₃, MgO and ZnO.

41. (New) A dielectric composition for a dielectric layer in a plasma display panel (PDP) comprising:

a glass powder, wherein the glass powder includes P_2O_5 - B_2O_3 -ZnO group; and
a colorant.

42. (New) The dielectric composition of claim 41, wherein the upper dielectric layer is formed by mixing 41.9wt%~52.0wt% of P_2O_5 , 3.3wt%~22.0wt% of B_2O_3 and 36.1wt%~44.7wt% of ZnO.

43. (New) The dielectric composition of claim 41, wherein the colorant is at least one of Nd_2O_3 , CoO, Co_3O_4 and Co_2O_3 .

44. (New) The dielectric composition of claim 43, wherein Nd_2O_3 is added in the range of 0~40 wt %, and at least one of Nd_2O_3 , CoO, Co_3O_4 and Co_2O_3 is added in the range of 0~10 wt %.

45. (New) A dielectric layer in a plasma display panel (PDP) comprising:
a glass powder, wherein the glass powder is one of PbO - B_2O_3 - SiO_2 - Al_2O_3 -RO group, P_2O_5 - B_2O_3 -ZnO group, ZnO- B_2O_3 -RO group, and PbO - B_2O_3 - SiO_2 - Al_2O_3 -BaO group; and

a colorant, wherein the colorant is at least one of Nd_2O_3 , CoO , Co_3O_4 and Co_2O_3 .

46. (New) The dielectric layer of claim 45, wherein the upper dielectric layer is formed by mixing 41.9wt%~52.0wt% of P_2O_5 , 3.3wt%~22.0wt% of B_2O_3 and 36.1wt%~44.7wt% of ZnO .

47. (New) The dielectric layer of claim 45, wherein Co_2O_3 is added in the range of 0~10wt%.

48. (New) A plasma display panel comprising a front substrate, and an upper dielectric layer on the front substrate, the upper dielectric layer comprising:

a glass powder, wherein the glass powder is P_2O_3 - B_2O_3 - ZnO group; and

a colorant, wherein the colorant is at least one of Nd_2O_3 , CoO , Co_3O_4 and Co_2O_3 .

49. (New) The plasma display panel of claim 48, wherein the upper dielectric layer is formed by mixing 41.9wt%~52.0wt% of P_2O_5 , 3.3wt%~22.0wt% of B_2O_3 and 36.1wt%~44.7wt% of ZnO .

50. (New) The plasma display panel of claim 48, wherein Co_2O_3 is added in the range of 0~10wt%.

51. (New) A method for fabricating a front substrate of a plasma display panel (PDP) comprising:

forming glass powder with a colorant added therein at a prescribed rate, wherein the colorant is Co_2O_3 ;

forming a dielectric paste by mixing the glass powder, a binder and a solvent, and wherein the glass powder is P_2O_5 - B_2O_3 - ZnO group;

coating the dielectric paste at the entire surface of the upper glass substrate with a transparent electrode and a bus electrode formed thereon to form a dielectric paste layer; and

firing the dielectric paste layer.

52. (New) The method of claim 51, wherein the upper dielectric layer is formed by mixing 41.9wt%~52.0wt% of P_2O_5 , 3.3wt%~22.0wt% of B_2O_3 and 36.1wt%~44.7wt% of ZnO .

53. (New) The method of claim 51, wherein Co_2O_3 is added in the range of 0~10wt%.